

## A NEW SPECIES OF THE GENUS PSEUDOCOCCUS

SIGEO KANDA (神田 重夫)

*The Yokohama Second Middle School*

NINE FIGURES

(Received Mar. 2, 1932)

On the 10th of June, 1931, I happened to catch a few specimens of scale-insects on the summit of Mt. Mitsutōgē (near Mt. Fuji) in the Province of Kai. Though it is clear that it belongs to the Dactylopinae, it is uncertain to which of the genera *Tyrococcus* and *Pseudococcus* it is to be referred, for these two resemble each other so much that we often find it difficult to discriminate them. Such being the case, there is much room to study as to the genus in which the species is properly to be placed. I have placed it provisionally, however, under the genus *Pseudococcus*. As they are all the females that I have caught, I can say nothing about the male.

Before proceeding further, I take the opportunity of offering my heartiest thanks and respect to Dr. S. I. Kuwana for his constant guidance, and at the same time I express my hearty gratitude to Mr. H. Shiraiwa of the Yokohama Imperial Plant Quarantine Station for his kindness.

*Pseudococcus kaiensis*, n. sp.

Adult female elongate ovate; the length is about 3 to 3.5 mm., with the width 1.3 to 1.5 mm. Dorsal surface pale brown in colour, and slightly covered with white mealy secretion, so that it appears almost white. The body rather flattened previous to impregnation; segmentations distinct, with particular wrinkles in thoracic region. After impregnation it becomes convex above and the sides nearly parallel, and the margin fringed with short, stout, bluntly-pointed waxy tassels: the

four terminal pairs being exceptionally long. Undersurface almost nude, but rather hairy than the dorsal surface.

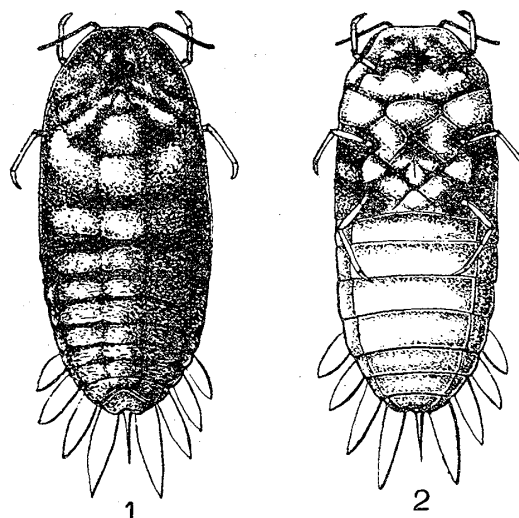


Fig. 1—Dorsal view of *Pseudococcus kaiensis*, n. sp. ♀  
Fig. 2—Ventral view of same.

Antenna eight-jointed, eighth the longest, second the next, first and second approximately equal, and sixth the shortest, varying in their relative length; formula 8, (2, 1) 3, 5, 7, 4, 6. Measurements of a few representative antennæ are as follows:

Joint	I	II	III	IV	V
1	0.071 mm.	0.072 mm.	0.068 mm.	0.069 mm.	0.067 mm.
2	0.073 mm.	0.071 mm.	0.074 mm.	0.073 mm.	0.068 mm.
3	0.063 mm.	0.063 mm.	0.065 mm.	0.064 mm.	0.053 mm.
4	0.045 mm.	0.044 mm.	0.045 mm.	0.045 mm.	0.037 mm.
5	0.057 mm.	0.058 mm.	0.055 mm.	0.056 mm.	0.051 mm.
6	0.037 mm.	0.038 mm.	0.039 mm.	0.038 mm.	0.035 mm.
7	0.046 mm.	0.045 mm.	0.047 mm.	0.046 mm.	0.047 mm.
8	0.099 mm.	0.100 mm.	0.098 mm.	0.098 mm.	0.091 mm.
Total	0.491 mm.	0.491 mm.	0.491 mm.	0.489 mm.	0.447 mm.

The total length of the antenna is about 0.49 mm. They bear many hairs. First with three long hairs; second, third, fourth, fifth, and sixth each with four or five long hairs, last joint with more than fifteen. The mentum consisting of two segments, the second of which

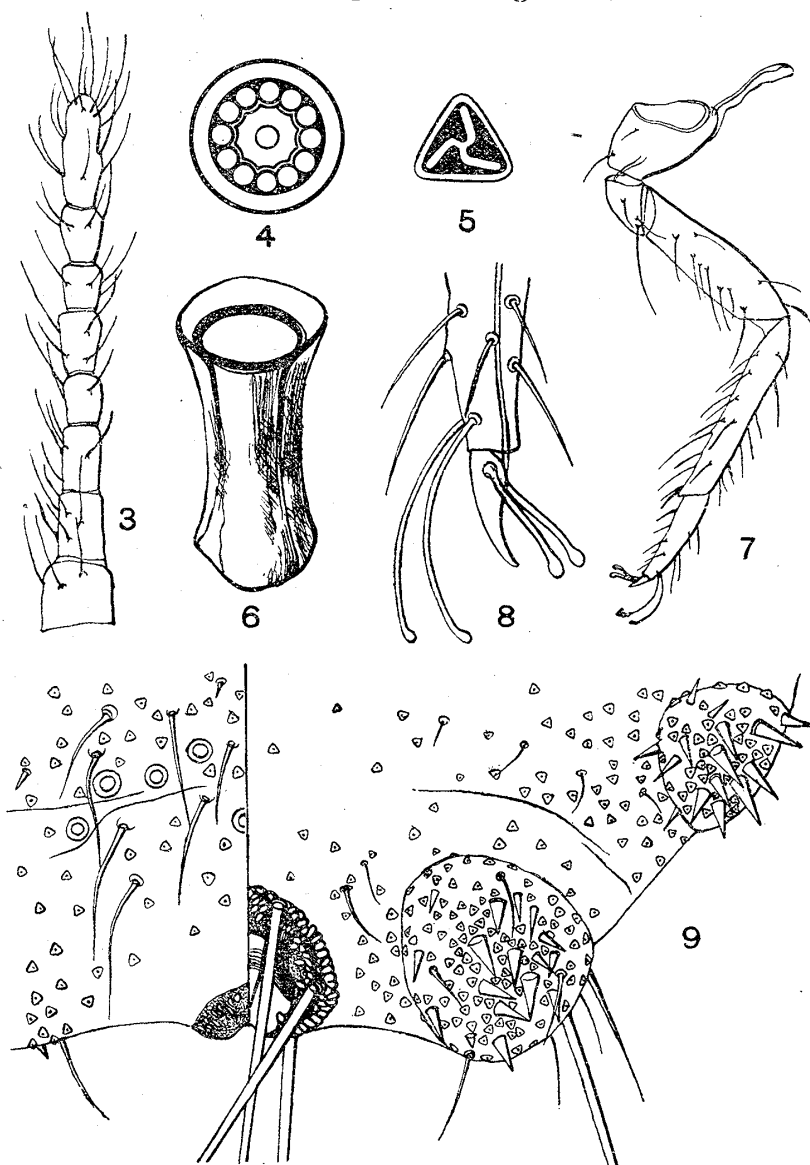


Fig. 3—Antenna of adult female of *Pseudococcus kaiensis*. Fig. 4—Circular pore of same. Fig. 5—Triangular pore of same. Fig. 6—Thoracic spiracle of same. Figs. 7, 8—Posterior leg of same. Fig. 9—Abdominal end of same.

is acutely conical in shape, with many short setæ near the top. The eyes are small, hemispherical, and each placed behind the antennæ. The three pairs of legs rather long and similar, each with many scattered bristles; the tibia slightly shorter than the femur; the tarsus shorter than half the length of the tibia; Claw falcated, without a tooth or denticle, slightly curved and acutely pointed; ungual digitules moderately dilated in extremity; tarsal digitules rather slender, scarcely knobbed at extremity. The lengths of the different parts of the hind leg are:

	Coxa	Trochanter	Femur	Tibia	Tarsus	Claw
Outside	0.150 mm.	0.077 mm.	0.333 mm.	0.300 mm.	0.130 mm.	0.035 mm.
Inside	0.110 mm.	0.125 mm.	0.225 mm.	0.290 mm.	0.105 mm.	0.032 mm.

The abdomen consists of seven segments and tapers gradually curving towards the caudal end. On both sides of each segments there are a number of stout spines and triangular wax pores; the terminal four pairs conspicuous, the caudal end the largest and more or less prominent, and provided each with a very long seta and a few short setæ, besides numerous triangular wax pores and fourteen or sixteen of stout spines. Well developed anal ring bearing six long setæ, each seta subequal in length.

Both the dorsal and the ventral surfaces bear many hairs and a few small spines, with numerous scattered triangular wax pores, but the hairs on the ventral surface are rather long and conspicuous, having a few large circular and triangular pores.

Habitat. Mt. Mitsutōge of Province Kai, Japan, on the stem and the leaves of *Calamagrostis* sp. July 10, 1931 (S. Kanda).

This species seems to be allied to *Phenacoccus takæ* Kuwana in external form, but differs from it in having eight-jointed antennæ, and a number of stout spines on both sides of the terminal segments, and at the same time it may easily be distinguished from other *Pseudococcus* by the particular anal ring and formula, besides numerous spines of abdominal end.